REMARKS

Claims 1, 3-12 and 15 are pending in the application.

Claims 1, 3-12 and 15 were rejected.

Claim1 12 is amended herein.

Claims 12 and 15 are cancelled

I.   35 U.S.C. §102 Claim Rejections

Independent claim 1, along with dependent claims 3-4, 10 and 11 were rejected under 35 U.S.C. §102(e) as being anticipated by Torsner *et al.* (U.S. Patent No. 7,187,677). Independent claim 12, along with dependent claim 15, were rejected under 35 U.S.C. §102(e) as being anticipated by Chao (U.S. Patent No. 6,693,910). Independent claim 1 has been amended herein. Independent claim 12 (along with claim 15 depending therefrom) has been cancelled. The Applicant respectfully traverses these rejections and requests reconsideration thereof based on those amendments and cancellations, and the arguments presented below.

The thrust of the invention here is a method for reducing the impact of stalling at a communications receiver due to the non-receipt, or delayed receipt of a packet expected by the receiver to be sent from a transmitting location. As taught by the Applicant, packet data is generally sent from a transmitter to a receiver in sequentially numbered packets. The receipt by the receiver of an out-of-sequence packet provides an indication that a prior-numbered packet has not been received. In the prior art, that determination <u>at the receiver</u> of receipt of an out-of-sequence packet triggers the start of a timer, and the continued non-receipt of the packet through a timeout of the timer duration is taken as an indication that the packet is lost. Upon such a lost-packet determination, the receiver moves on to other packet processing steps which are known in the art. The processing delay related to the wait at the receiver for either receipt of the non-received packet or timer timeout is generally characterized as a stall condition.

However, as the Applicants point out, there are various conditions that may occur <u>at the transmitter site</u> that are known to the transmitter as conditions that would likely result in a lost-packet event occurring at the receiver. However, while the transmitter site may have immediate or short-term indication of the occurrence of an condition that would result in such

a lost-packet event being logged at the receiver -- *e.g.*, that one or more specific packets were not transmitted, the receiver must await timer timeout for the non-received packet before confirming that determination, thus resulting in an unnecessary stall condition at the receiver.

According to the method of the invention, a probability of a stalling condition occurring in respect to a given transmitted packet is determined at the transmitter site, as a function of known system parameters – generally, amount of data being transmitted, number of retransmission requests from the receiver and transmission error probability. From that probability, a wait time is determined in respect to an expected event or response. If the event or response does not occur by the end of the wait time so determined, a signal is sent to the receiver, termed a "flush command," that operates to terminate a stall condition occurring in respect to the apparently-missing packet. In many instances termination of the stall condition through operation of the probabilistically determined flush command will end the stall condition earlier than would have occurred through operation of the timer timeout at the receiver.

With respect to the rejection of independent claim 1 as being anticipated by Torsner, the Applicant notes that claim 1 includes a limitation directed to the determination of the stall probability parameter described above, and respectfully submits that Torsner cannot reasonably be construed to teach any such probability determination. The particular portion of Torsner cited by the Office Action as supporting its conclusion that Torsner teaches this limitation (col. 3, lines 43-45) is merely a statement of the goal of Torsner's invention ("stall avoidance") and a definition of what constitutes a stall condition for Torsner's approach. Indeed, in the immediately following text, Torsner describes its approach for addressing a stall condition as exactly the timer timeout approach described above and well known in the prior art. Thus, at best, Torsner can be seen to only teach a binary determination that a stall condition exists or does not exist. Plainly such a binary determination does not constitute a probabilistic characterization of the likelihood of a stall occurring – inherently a range of values. The Office Action turns logic on its head here in its assertion that such an on-off resultant in Torsner could somehow be characterized as probabilistic. Even if one stretches the point to assert that a collection of such resultants might be characterized as a statistical distribution, nothing in such a resultant can reasonably be construed to infer a probabilistic

determination of any individual resultant -- and plainly, as described above, nothing in the approach of Torsner could reasonably be described as a probabilistic determination of a stall condition.

Equally important, whatever characterization is made as to Torsner's action in addressing a stall condition, it is clear that Torsner's approach is applied solely at the receiver, and, particularly, that Torsner simply teaches the introduction of a stall timer at the receiver. By contrast, as discussed above, the methodology of the invention operates at the transmitter site to develop probabilities of a stalling condition occurring based on system parameters determined at the transmitter site. Upon a determination of a likely stalling condition by the method of the invention, a signal is then sent from the transmitter site to the receiver, which will generally operate to terminate the timer operation at the receiver, with the packet in question being determined as lost. Plainly, nothing remotely similar to this transmitter-based operation of the invention methodology is taught or suggested by Torsner.

The Applicant believes it clear that, in addition to Torsner's failure to teach Applicant's claim limitation of determining a probability of a stalling condition at the transmitter site based on a state of one or more system parameters determined at the transmitter site, that reference also fails to teach or suggest the further limitation of independent claim 1 respecting the transmittal of a flush command to the receiver for the purpose of terminating the stall condition. The Office Action asserts that this limitation is taught by a portion of Torsner addressed to the termination of the stall condition upon the missing data not being received by the expiration of a timer operated at the receiver. Not only is such a receiver-based timer -- provided as a basis for terminating a stall condition -- part of the prior art already addressed by the Applicant in the background portion of his application, such a receiver-based timer operation cannot possibly be construed as equivalent to a flush command transmitted to the receiver, necessarily from a source apart from the receiver.

In spite of his strong belief that Torsner fails to teach the limitations of his present claim 1, the Applicant has further amended claim 1 in an effort to further clarify the distinctions described herein over Torsner. In view of the amendments to claim 1, and the showing above as to the absence of an anticipatory teaching by Torsner, the Applicant

submits that amended claim 1 is clearly patentable over Torsner. The remaining claims rejected as being anticipated by Torsner all depend, either directly or indirectly from independent claim 1 and thus must also be patentable on the basis of that dependency. In addition, the Applicant respectfully submits that the limitation of dependent claim 4 – estimating a wait time as a function of the determined stall probability – is plainly not taught by Torsner, and that claim is accordingly independently patentable over Torsner. The teaching of Torsner cited by the Office Action as teaching the limitation of claim 4 is solely directed to Torsner's use of a timer at the receiver to terminate a stall condition at timer expiration. Plainly, such a timer-based stall termination has no relationship to a wait time established as a function of a determined stall probability.

Withdrawal of the §102 rejection of claims 1, 3-4 and 10-11 is accordingly respectfully requested.

With respect to the rejection of independent claim 12 as being anticipated by Chao, the Applicant notes that claim 12 (along with claim 15 depending therefrom) has been cancelled. Accordingly, this rejection basis is believed to be moot.
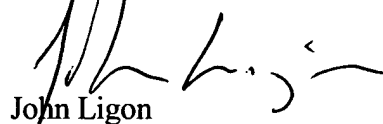
II. 35 U.S.C. §103 Claim Rejections

Dependent claims 5-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Torsner in view of Watanabe *et al.* (U.S. Patent No. 6,285,662). All of these rejected claims depend, directly or indirectly, from independent claim 1, which was shown above to be patentable over Torsner, and therefore should be patentable as well based on that dependency. Withdrawal of the §103 rejection of dependent claims 5-9 is accordingly respectfully requested.

III.   Conclusion

If the Examiner should feel that the application is not yet in a condition for allowance and that a telephone interview would be useful, he is invited to contact applicants' attorney, John Ligon, at **(908) 582-5294.**

Respectfully submitted,

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